

What is claimed is:

1. Apparatus for forming a tissue fold in a tissue wall of a patient's hollow body cavity, the apparatus comprising:

a catheter having a flexible tube with a distal region configured for insertion into the cavity;

a tissue engaging assembly disposed on the distal region, the tissue engaging assembly defining a first tissue contact point;

a second tissue contact point disposed at a location initially proximal of, or in line with, the first tissue contact point; and

means for moving the first tissue contact point to a position proximal of the second tissue contact point to form the tissue fold.

2. The apparatus of claim 1 further comprising a third tissue contact point disposed at a location initially proximal of, or in line with, the first tissue contact point, wherein the means for moving moves the first tissue contact point to a position proximal of the third tissue contact point to form the tissue fold, so that the second and third tissue contact points are disposed on opposing sides of the tissue fold.

3. The apparatus of claim 3, wherein the means for moving linearly displaces the first tissue contact point relative to the second and third tissue contact points.

4. The apparatus of claim 1 further comprising an anchor delivery system adapted to deliver and secure the tissue fold with an anchor assembly.

5. The apparatus of claim 4, wherein the anchor delivery system comprises a flexible delivery catheter adapted for insertion into the cavity.

6. The apparatus of claim 5, wherein the flexible delivery catheter is configured to buckle into transverse alignment with the tissue fold.

7. The apparatus of claim 6, wherein the anchor delivery system further comprises a needle configured for advancement through the flexible delivery catheter and for transverse passage through the tissue fold.

8. The apparatus of claim 7, wherein the anchor assembly is configured for delivery through the needle.

9. The apparatus of claim 1, wherein the tissue engaging assembly is configured to engage mucosa, thereby defining the first tissue contact point.

10. The apparatus of claim 1, wherein the tissue engaging assembly is configured to engage muscularis, thereby defining the first tissue contact point.

11. The apparatus of claim 1, wherein the tissue engaging assembly is configured to engage serosa, thereby defining the first tissue contact point.

12. The apparatus of claim 4, wherein the tissue fold comprises serosa-to-serosa tissue contact and

the anchor assembly is adapted to secure the serosa-to-serosa tissue contact.

13. The apparatus of claim 1 further comprising a shape-lockable guide tube.

14. A method of forming a tissue fold in a tissue wall of a patient's hollow body cavity, the method comprising:

endoscopically engaging the tissue wall at a first tissue contact point;

endoscopically contacting the tissue wall at a second tissue contact point; and

moving the first tissue contact point from a position initially distal to, or in line with, the second tissue contact point to a position proximal of the second tissue contact point, thereby forming the tissue fold.

15. The method of claim 14 wherein moving the first tissue contact comprises linearly displacing the first tissue contact point relative to the second tissue contact point.

16. The method of claim 14 further comprising:  
endoscopically contacting the tissue wall at a third tissue contact point; and

moving the first tissue contact point from a position initially distal to, or in line with, the third tissue contact point to a position proximal of the second and third tissue contact points, so that the second and third tissue contact points are disposed on opposing sides of the fold.

17. The method of claim 14 wherein the tissue fold comprises a serosa-to-serosa tissue fold, the method further securing the serosa-to-serosa tissue fold.

18. The method of claim 17, wherein securing the serosa-to-serosa tissue fold further comprises placing a needle transversely across the tissue fold.

19. The method of claim 18, wherein securing the serosa-to-serosa tissue fold further comprises deploying an anchor assembly from within the needle.

20. The method of claim 19, wherein placing a needle transversely across the tissue fold further comprises:

advancing the needle through a delivery catheter; and

buckling the delivery catheter into transverse alignment with the tissue fold.

21. A method for endoscopically performing gastric reduction, the method comprising:

endoscopically engaging a tissue wall within a patient's stomach at a first tissue contact point;

endoscopically contacting the tissue wall at a second tissue contact point;

moving the first tissue contact point from a position initially distal to, or in line with, the second tissue contact point to a position proximal of the second tissue contact point, thereby forming a first tissue fold; and

forming at least one additional tissue fold within the stomach.

22. The method of claim 21 wherein the first tissue fold comprises a serosa-to-serosa tissue fold, the method further securing the serosa-to-serosa tissue fold.

23. The method of claim 22, wherein securing the serosa-to-serosa tissue fold further comprises placing a needle transversely across the first tissue fold.

24. The method of claim 23, wherein securing the serosa-to-serosa tissue fold further comprises deploying an anchor assembly from within the needle.

25. The method of claim 23, wherein placing a needle transversely across the first tissue fold further comprises:

advancing the needle through a delivery catheter; and

buckling the delivery catheter into transverse alignment with the first tissue fold.

26. Apparatus for performing a medical procedure within a hollow body organ of tortuous or unpredictably supported anatomy, the apparatus comprising:

an overtube having a flexible state that facilitates insertion of the overtube into the hollow body organ, and a rigid state wherein the overtube resists bending forces exerted on the overtube; and

a mechanism selectively operable to reversibly transition the overtube between the flexible and rigid states,

wherein at least a portion of the overtube is configured to be manipulated from outside the hollow body organ.

27. The apparatus of claim 26, wherein at least one section of the overtube is adapted to remain in the flexible state upon transition of the overtube to the rigid state.

28. The apparatus of claim 26, wherein at least one section of the overtube comprises varied rigidity relative to a different section of the overtube when the overtube is disposed in the rigid state.

29. The apparatus of claim 26, wherein at least one section of the overtube comprises varied flexibility relative to a different section of the overtube when the overtube is disposed in the flexible state.

30. The apparatus of claim 26, wherein at least one section of the overtube comprises is steerable.